SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

ANNUAL AIR QUALITY MONITORING NETWORK PLAN

July 1, 2023

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INTRODUCTION

An annual review of the Air Quality Monitoring Network is required by Federal Regulations to identify, and report needs for additions, relocations, or terminations of monitoring sites or instrumentation. This report describes the network of ambient air quality monitors in the jurisdiction of and operated by the South Coast Air Quality Management District (South Coast AQMD). It includes a review of actions taken during the 2022-2023 fiscal year and plans for action in the year ahead. This plan addresses the requirement for an annual network plan as listed in Title 40, Part 58, Section 10 of the Code of Federal Regulations (40 CFR § 58.10). Regulations require the report be submitted to the U.S. Environmental Protection Agency (U.S. EPA) by July 1 of each year after a 30-day public comment period. All monitors meet the requirement of appendices A, B, C, D and E as required in 40 CFR § 58.10 (a)(1) where applicable.

South Coast AQMD, along with the California Air Resources Board (CARB), conducted an extensive review of the air monitoring sites in the South Coast Air Basin (Basin). During the review, State and Local Air Monitoring Stations (SLAMS) designations, site type and spatial scales of representativeness were assigned to the criteria pollutants monitored at each site. Since that time, U.S. EPA Region IX and CARB staff visited selected sites to confirm compliance with applicable siting criteria and related requirements. The most recent U.S. EPA site visits occurred in April 2022 to conduct a comprehensive Technical System audit (TSA) of the National Air Toxics Trend sites; May 2023 to conduct TSAs of the Photochemical Assessment Monitoring Stations (PAMS) and criteria pollutant air monitoring networks. Each year, South Coast AQMD staff conducts an annual review of its air monitoring network and submits a network plan to U.S. EPA. The review process focuses on current and future air monitoring network strategies, any changes to the network are made in consultation with U.S. EPA and CARB. When re-location of monitoring sites become necessary, site reports are updated in U.S. EPA's Air Quality System (AQS) to document compliance with established siting criteria for the new locations.

Public Comments

Pursuant to Federal regulations, a draft plan was made available for public inspection electronically at (http://www.aqmd.gov/home/air-quality/clean-air-plans/monitoring-network-plan) from May 18, 2023 through June 16, 2023 for a comment period of 30 days. Hard copies of the final document are available at the South Coast AQMD's Public Information Desk in Diamond Bar, CA. The final document is available on the South Coast AQMD website beginning July 1, 2023, and is made available to by U.S. EPA July 1, 2023, and a hardcopy provided upon request.

Environmental Justice

The criteria pollutant monitoring network supports EPA's Strategic Plan Goal 4, "Ensure Clean and Healthy Air for All Communities (Protect human health and the environment from the harmful effects of air pollution)" and Objective 4.1, "Improve Air Quality and Reduce Localized Pollution and Health Impacts (Reduce air pollution on local, regional, and national scales to achieve healthy air quality for people and the environment)." South Coast AQMD's criteria pollutant monitoring network. supports, U.S. EPA's strategic plan by monitoring air quality representative of all communities with emphasis on communities historically overburdened and underserviced and facilitating development of attainment strategies which will assist in achieving and maintaining health-based air pollution standards to reduce direct emission of particulate matter and other criteria air pollution from stationary and mobile

sources that are protective of human health. Communities are identified by data sources and methodology for Environmental Justice (EJ) Community identification. The sources and methodology used include air toxics cancer risk data from the South Coast AQMD Multiple Air Toxics Exposure study (MATES), environmental pollution, socioeconomic factors, public health factors from Enviro Screen 4.0 and demographic data from the Census Bureau, American Community Survey.

Network Design

The South Coast AQMD operates 35 permanent air monitoring stations (AMS) and 2 single pollutant source impact Lead (Pb) air monitoring sites in the Basin and a portion of the Salton Sea Air Basin in Coachella Valley. This area includes Orange County and the non-desert portions of Los Angeles, Riverside and San Bernardino Counties. The most recent sites added were part of the area wide monitoring network at Signal Hill and North Hollywood replacing the previously closed Long Beach (North) and Burbank AMS. The newest source impact Pb sites were added in January 2010 as required by U.S. EPA regulation. The most recent site closure was the Upland site on March 31, 2023, due to an unexpected lease termination beyond the control of South Coast AQMD. Additionally, the Azusa, Indio, LAX (Hastings) and Mission Viejo sites are currently offline during transition to new locations. Details are included in the "Recent or Proposed Modifications to Network" section. Table 1 provides a list of monitoring locations, U.S. EPA AQS site codes, and the pollutants measured at each site. Table 2 provides the spatial scale and the site type for each monitor at all sites. Table 3 describes the monitoring purpose for the monitors at each site. Table 4 describes the site type, spatial scale, and monitoring purpose for continuous particulate analyzers at each site. A requirement of the annual network plan, the *monitoring purpose* is the reason a certain pollutant is being measured at a certain site.

A list and description of monitoring purposes are provided below, and portions are adapted from the CARB annual network plan.

> *Background Level* monitoring is used to determine general background levels of air pollutants as they enter the Basin.
>
> *High Concentration* monitoring is conducted at sites to determine the highest concentration of an air pollutant in an area within the monitoring network. A monitoring network may have multiple high concentration sites (i.e., due to varying meteorology year to year).
>
> *Pollutant Transport* is the movement of pollutants between air basins or areas within an air basin. Transport monitoring is used to assess and mitigate upwind areas when transported pollutant affects neighboring downwind areas. Also, transport monitoring is used to determine the extent of regional pollutant transport among populated areas and to rural areas.
>
> *Population Exposure* monitoring is conducted to represent the air pollutant concentrations that a populated area is exposed to.
>
> *Representative Concentration* monitoring is conducted to represent the air quality concentrations for a pollutant expected to be similar throughout a geographical area. These sites do not necessarily indicate the highest concentrations in the area for a particular pollutant.

Source Impact monitoring is used to determine the impact of significant sources or source categories of air quality emissions on ambient air quality. The air pollutant sources may be stationary or mobile.

Trend Analysis monitoring is useful for comparing and analyzing air pollution concentrations over time. Usually, trend analyses can be used to assess the progress in improving air quality for an area over a period of several years.

Site Comparison monitoring is used to assess the effect on measured pollutant levels of moving a monitoring location a short distance (usually less than two miles). Some monitoring stations are no longer usable due to development, change of lease terms, or eviction. In these cases, attempts are made to conduct concurrent monitoring at the old and new site for a period of at least one year to compare pollutant concentrations.

Real Time Reporting/Modeling is used to provide data to U.S. EPA's AIRNOW system which reports conditions for air pollutants on a real time basis to the public. Data is also used to provide accurate and timely air quality forecast guidance to residents of the Basin.

Multiple purposes for measuring a pollutant at a site are possible. There is a slight overlap between site type and monitoring purposes as defined by U.S. EPA and given in Tables 2, 3 and 4.

TABLE 1. List of Monitoring Sites

	Location	AQS No.	Criteria Pollutants Monitored	Start Date
1	Anaheim	060590007	CO, NO2, O3, PM10, PM2.5	08/01
2	Anaheim Route 5 Near Road	060590008	CO, NO2	01/14
3	Azusa[1, 2]	060370002	CO, NO2, O3, PM10, PM2.5	01/57
4	Banning Airport	060650012	NO2, O3, PM10, PM2.5	04/97
5	Big Bear	060718001	PM2.5	02/99
6	Central San Bernardino Mountains	060710005	O3, PM10, PM2.5	10/73
7	Closet World (Quemetco)	060371404	Pb	10/08
8	Compton	060371302	CO, NO2, O3, Pb, PM2.5	01/04
9	Fontana	060712002	CO, NO2, SO2, O3, PM10, PM2.5	08/81
10	Glendora	060370016	CO, NO2, O3, PM10, PM2.5	08/80
11	Indio[1, 2]	060652002	O3, PM10, PM2.5	01/83
12	La Habra	060595001	CO, NO2, O3	08/60
13	Lake Elsinore	060659001	CO, NO2, O3, PM10, PM2.5	06/87
14	LAX Hastings[1, 2]	060375005	CO, NO2, O3, PM10, Pb	04/04
15	Long Beach (Hudson)	060374006	PM10	01/10
16	Long Beach Route 710 Near Road	060374008	NO2, PM2.5	01/15
17	Los Angeles (Main St.)	060371103	CO, NO2, SO2, O3, PM10, Pb, PM2.5	09/79
18	Mecca (Saul Martinez)	060652005	PM10, H2S	01/11
19	Mira Loma (Van Buren)	060658005	CO, NO2, O3, PM10, PM2.5	11/05
20	Mission Viejo[1,2]	060592022	CO, O3, PM10, PM2.5	06/99
21	North Hollywood	060374010	NO2, O3, PM2.5	01/2020
22	Ontario Etiwanda Near Road	060710026	CO, NO2	06/14
23	Ontario Route 60 Near Road	060710027	NO2, PM2.5	01/15
24	Palm Springs	060655001	CO, NO2, O3, PM10, PM2.5	04/71
25	Pasadena	060372005	CO, NO2, O3, PM2.5	04/82
26	Pico Rivera #2	060371602	CO, NO2, O3, PM10, Pb, PM2.5	09/05
27	Pomona	060371701	CO, NO2, O3	06/65
28	Redlands	060714003	O3, PM10	09/86
29	Rehrig (Exide)	060371405	Pb	11/07
30	Reseda	060371201	CO, NO2, O3, PM2.5	03/65
31	Rubidoux	060658001	CO, NO2, SO2, O3, PM10, Pb, PM2.5	09/72
32	San Bernardino	060719004	CO, NO2, O3, PM10, Pb, PM2.5	05/86
33	Santa Clarita	060376012	CO, NO2, O3, PM10, PM2.5	05/01
34	Signal Hill	060374009	NO2, O3, PM2.5	01/2020
35	Temecula	060650016	O3, PM2.5	06/10
36	Upland[2]	060711004	CO, NO2, O3, PM10, PM2.5	03/73
37	West Los Angeles	060370113	NO2, O3	05/84

[1] Site is currently offline during transition to new location.
[2] System Modification Request in process.

TABLE 2. FRM Criteria Pollutant Spatial Scales and Site Type

SPATIAL SCALE
MI – Microscale
MS – Middle Scale
NS – Neighborhood Scale
US – Urban Scale

SITE TYPE
HC – Highest Concentration
PE – Population Exposure
IM – Source Oriented (Impact)
BK – General Background

SITE TYPE
CO - Collocated

	Location	CO	NO2	SO2	O3	Manual PM10	Manual PM2.5	Pb
1	Anaheim	NS/PE	NS/PE		NS/PE	NS/HC	NS/PE	
2	Anaheim Route 5 Near Road	MI/IM	MI/IM					
3	Azusa[1, 2]	NS/PE	US/PE		US/HC	NS/PE	NS/PE	
4	Banning Airport		NS/PE		NS/PE	NS/PE		
5	Big Bear						NS/CO	
6	Central San Bernardino Mountains				NS/HC	NS/PE		
7	Closet World (Quemetco)							MI/IM
8	Compton	MS/HC	NS/PE		NS/PE		NS/HC	NS/PE/CO
9	Fontana	NS/PE	US/PE	NS/PE	US/PE	NS/HC/PE	NS/PE	
10	Glendora	NS/PE	NS/PE		NS/HC			
11	Indio[1, 3]				NS/PE	NS/HC/CO	NS/PE	
12	La Habra	NS/PE	US/PE		NS/PE			
13	Lake Elsinore	NS/PE	NS/PE		NS/PE			
14	LAX Hastings[1, 2]	MS/PE/BK	MS/PE/BK	NS/PE/BK	NS/PE/BK	NS/PE/BK		NS/PE/BK
15	Long Beach (Hudson)							
16	Long Beach Route 710 Near Road		MI/IM				MI/IM	
17	Los Angeles (Main St.)	NS/PE	NS/HC	NS/PE	NS/PE	NS/PE/CO	NS/PE/CO	NS/PE/CO
18	Mecca (Saul Martinez)							
19	Mira Loma (Van Buren)	NS/PE	NS/PE		NS/PE	NS/HC/CO	NS/HC/CO	
20	Mission Viejo[1, 2, 3]	NS/PE			NS/PE	NS/PE	NS/PE	
21	North Hollywood		NS/PE		NS/PE			
22	Ontario Etiwanda Near Road	MI/IM	MI/IM					
23	Ontario Route 60 Near Road		MI/IM				MI/IM	
24	Palm Springs	NS/PE	NS/PE		NS/PE	NS/PE	NS/PE	
25	Pasadena	MS/PE	MS/HC		NS/PE		NS/PE	
26	Pico Rivera #2	NS/PE	NS/HC		NS/PE		NS/PE	NS/PE
27	Pomona	MI/IM	MI/IM		NS/PE			
28	Redlands				NS/PE/HC	NS/PE		
29	Rehrig (Exide)							MI/IM
30	Reseda	NS/PE	NS/PE		NS/PE		NS/PE	
31	Rubidoux	NS/PE	NS/PE	NS/PE	NS/PE	NS/HC/CO	NS/HC/CO	NS/PE
32	San Bernardino	NS/PE	NS/PE		NS/PE		NS/PE	NS/PE
33	Santa Clarita	NS/PE	NS/PE		NS/HC	NS/PE		
34	Signal Hill		NS/PE		NS/PE		NS/CO	
35	Temecula				NS/HC			
36	Upland[2]	NS/PE	NS/PE		NS/PE			
37	West Los Angeles		MS/HC		NS/PE			

[1] Site is currently offline during transition to new location.
[2] System Modification Request in process.
[3] Site in process of transition to PM2.5 FEM

TABLE 3. FRM Criteria Pollutant Monitoring Purposes

MONITORING PURPOSE

BK – Background
HC – High Concentration
TP – Pollutant Transport
EX – Population Exposure
RC – Representative Concentration
RM – Real-Time Reporting/Modeling
TR – Trend Analysis
CO – Collocated
SO – Source Impact
CP – Site Comparisons

	Location	CO	NO2	SO2	O3	Manual PM10	Manual PM2.5	Pb
1	Anaheim	TR	TR/RC		TR	HC/TR	TR/EX	
2	Anaheim Route 5 Near Road	SO/HC	SO/HC					
3	Azusa[1, 2]	TR	TR/RC		TR	TR	TR/EX	
4	Banning Airport		TP/RC		TP	TP		
5	Big Bear						EX/TP/CO	
6	Central San Bernardino Mountains				HC	TP/RC		
7	Closet World (Quemetco)							SO
8	Compton	TR/HC	TR/RC		TR/RC		EX/HC/RC	EX/CO
9	Fontana	RC	TP/RC	TR	RC	HC/RC	EX/TP	
10	Glendora	RC	TR/RC		HC			
11	Indio[1, 2, 3]				TP	HC/CO	TP/EX	
12	La Habra	RC	TR/RC		RC			
13	Lake Elsinore	TP/RC	TP/RC		TP/RC			
14	LAX Hastings[1, 2]	BK	BK	BK	BK	BK		BK
15	Long Beach (Hudson)							
16	Long Beach Route 710 Near Road		SO/HC				SO/HC	
17	Los Angeles (Main St.)	SO/RC	SO/HC	TR	TR/RC	TR/RC/CO	EX/HC/CO	EX/CO
18	Mecca (Saul Martinez)							
19	Mira Loma (Van Buren)	TR/RC	TR/RC		TR/HC	HC/CO	EX/HC/CO	
20	Mission Viejo[1, 2, 3]	RC			TR/RC	TR/RC	EX/RC	
21	North Hollywood		TR/RC		TR/RC			
22	Ontario Etiwanda Near Road	SO/HC	SO/HC					
23	Ontario Route 60 Near Road		SO/HC				SO/HC	
24	Palm Springs	TP/RC	TP/RC		TP	TP	EX/TP	
25	Pasadena	TR/RC	TR/HC		TR/RC		EX/RC	
26	Pico Rivera #2	RC	HC		EX		EX/RC	EX
27	Pomona	SO	SO		EX			
28	Redlands				TP/HC	TP/RC		
29	Rehrig (Exide)							SO
30	Reseda	RC	TR/RC		EX		EX/RC	
31	Rubidoux	TR/RC	TR/RC	TR	TR/HC	HC/TR/CO	HC/EX/TR/CO	EX
32	San Bernardino	TR/RC	TP/RC		TR/HC		EX/TR	EX
33	Santa Clarita	TP/RC	TP/RC		TR/HC	RC		
34	Signal Hill		TR/RC		TR		TP/CO	
35	Temecula				TR/HC			
36	Upland[2]	RC	TR/RC		TR/RC			
37	West Los Angeles		TR/HC		RC			

[1] Site is currently offline during transition to new location.
[2] System Modification Request in process.
[3] Site in process of transition to PM2.5 FEM

TABLE 4. Continuous $PM_{10}/PM_{2.5}$ Monitoring Purpose, Site Type and Spatial Scales

SITE TYPE
HC – High Concentration
PE – Population Exposure
BK - Background

SPATIAL SCALE
MI – Microscale
NS – Neighborhood Scale

INSTRUMENT TYPE
BAM FEM
BAM (NON-FEM)

MONITORING PURPOSE
CO – Collocated
SO – Source Impact
TP – Pollutant Transport
RM – Real-Time Reporting/Modeling
SPM Special Purpose Monitoring
TR – Trend Analysis

	Continuous PM10				Continuous PM2.5				PM10 – 2.5
Location	**Type**	**Purpose**	**Site Type**	**Scale**	**Type**	**Purpose**	**Site Type**	**Scale**	**Operational**
Anaheim	BAM/FEM	TR/RM	HC	NS	BAM/FEM	TR/RM	PE	NS	
Banning Airport					BAM/NON-FEM	TP/RM	PE	NS	
Big Bear					BAM/ FEM SPM[2]	TP/RM/CO	PE	NS	
Central San Bernardino Mountains					BAM/NON-FEM[3]	TP/RM	PE	NS	
Compton					BAM/FEM SPM[1]	TR/RM	HC	NS	
Glendora	BAM/FEM	TR/RM	PE	NS	BAM/NON-FEM	TR/RM	PE	NS	
Indio[4, 5]	BAM/FEM	RM	HC	NS					
Lake Elsinore	BAM/FEM	TP/RM	PE	NS	BAM/NON-FEM	TP/RM	PE	NS	
Long Beach Route 710 Near Road					BAM/FEM	SO/RM	HC	MI	
Long Beach (Hudson)	BAM/FEM	TR/RM	PE	NS					
Los Angeles (Main St.)	BAM/FEM	TR/RM	PE	NS	BAM/FEM	TR/RM	HC	NS	No
Mecca (Saul Martinez)	BAM/FEM	RM	HC	NS					
Mira Loma (Van Buren)	BAM/FEM	TR/RM	HC	NS	BAM/FEM	TR/RM	HC	NS	
North Hollywood					BAM/NON-FEM	TR/RM	PE	NS	
Ontario Route 60 Near Road					BAM/FEM	SO/RM	HC	MI	
Palm Springs	BAM/FEM	TR/RM	PE	NS					
Reseda					BAM/NON-FEM	RM	PE	NS	
Rubidoux	BAM/FEM	TR/RM	HC	NS	BAM/FEM	RM/TR/CO	HC	NS	No
San Bernardino	BAM/FEM	TR/RM	PE	NS					
Santa Clarita					BAM/NON-FEM	TP/RM	PE	NS	
Signal Hill	BAM/FEM	TR/RM	PE	NS	BAM/FEM SPM[6]	TR/RM/CO	PE	NS	
Temecula					BAM/NON-FEM	TP/RM	PE	NS	
Upland[4]	BAM/FEM	RM	PE	NS	BAM/NON-FEM	RM	PE	NS	
TOTAL Sites	13 FEM				9 Non-FEM 9 - FEM				

[1] Site began operation July 1, 2020, as SPM.
[2] Site began operation January 1, 2022, as SPM.
[3] Site began operation July 1, 2022.
[4] Site is currently offline during transition to new location.
[5] Site in process of transition to PM2.5 FEM.
[6] Site began operation July 1, 2022.

A brief description of the criteria pollutant and program monitoring networks is provided below:

OZONE (O3)

The South Coast AQMD operates 28 sites where O3 measurements are made as part of the Air Monitoring Network. O3 sites are spread throughout the Basin with highest concentrations measured inland. Figure 1 in Appendix A shows the spatial distribution of these sites and Table 14 shows the minimum monitoring requirements.

PM10

Size-selective inlet manual high-volume samplers are operated at 15 sites, and continuous monitors at 13 sites to meet the requirements for PM10 Federal Reference Method (FRM) daily sampling. The PM10 monitoring network contains two sites within 20 percent of the Federal National Ambient Air Quality Standard (NAAQS) as shown in the 2022 Air Quality Data Table (http://www.aqmd.gov/home/air-quality/air-quality-data-studies/historical-data-by-year) Figure 9. The South Coast AQMD PM10 monitoring network exceeds the minimum number of monitors required as shown in Table 18 and Figure 2.

PM10 sampling frequency requirements specify a 24-hour sample must be taken from midnight to midnight (local standard time) to ensure national consistency. The minimum monitoring schedule for the site in the area of expected maximum concentration shall be based on the relative level of that monitoring site concentration with respect to the 24-hour standard.

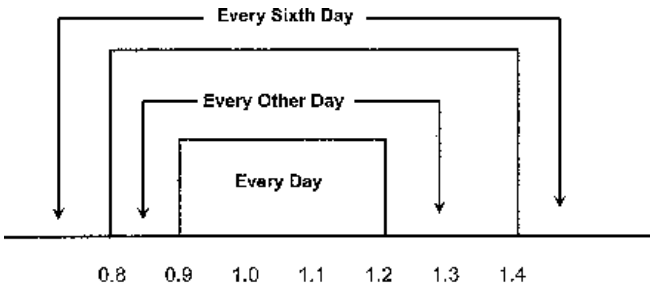

Figure 1 – Ratio to Standard

Evaluation of daily values show all PM10 FRM monitors may operate on a schedule of one sample every six days (1-in-6) except for Indio, Long Beach (Hudson), Palm Springs, San Bernardino, and Upland. The sampling frequency requirement for these sites are met by utilizing a continuous FEM PM10 monitor.

Quality control for Manual PM10 requires 15 percent of the primary monitors be collocated. Fifty percent of the collocated quality control monitors should be deployed at sites with daily concentrations estimated to be within plus or minus 20 percent of the applicable NAAQS and the remainder at the discretion of the Primary Quality Assurance Organization (PQAO). Guidance recommends, “if an organization has no sites with daily concentrations within plus or minus 20 percent of the NAAQS, 50 percent of the collocated quality control monitors should be deployed at those sites with the daily mean concentrations among the highest for all sites in the network and the remainder at the PQAOs discretion”. Indio, Mira Loma (Van

Buren) Rubidoux and Los Angeles sites meet this requirement and are designated PM10 collocated and shown in Tables 5, 6 and 26.

Thirteen monitor locations make up the continuous PM10 network. These real-time devices can make hourly particulate concentration measurements for real-time reporting. Table 4 describes the monitor type, site type, monitoring purpose and spatial scale for continuous particulate analyzers. Figure 2 in Appendix A shows the spatial distribution of the sampling sites. Real monitors are clustered in high concentration areas, with three located in the Coachella Valley desert area where wind-blown crustal material has caused exceedances of the 24-hour standard during exceptional events. In downwind areas of the Basin, a large fraction of particulate is formed in the atmosphere; PM10 typically reaches maximum levels in the Basin during late summer through early winter months.

During 2023, it is anticipated the Anaheim, Indio, Mira Loma, Palm Springs, and San Bernardino sites will transition to continuous monitors as the primary data for comparison to NAAQS.

TABLE 5. Manual PM10 FRM Monitoring Stations Assigned Site Numbers

	Location	Site Code	ARB No.	AQS No.	Start Date	Schedule
1	Anaheim [7]	ANAH	30178	060590007	01/03/99	1-in-6
2	Azusa [6]	AZUS	70060	060370002	01/04/99	1-in-6
3	Banning	BNAP	33164	060650012	04/01/97	1-in-6
4	Central San Bernardino Mountains	CRES	36181	060710005	10/01/73	1-in-6
5	Fontana	FONT	36197	060712002	01/03/99	1-in-6
6A	Indio "A" & "B" [1,6,7] Composite	INDI	33157	060652002	01/30/99	1-in-3
6C	Indio "C" [3, 4, 6, 7]	INDI	33157	060652002	01/30/99	1-in-6
7	LAX (Hastings) [6]	LAXH	70111	060375005	04/01/04	1-in-6
8A	Los Angeles (Main St.) "A"	CELA	70087	060371103	01/03/99	1-in-6
8B	Los Angeles (Main St.) "B" [2]	CELA	70087	060371103	01/03/99	1-in-6
9A	Mira Loma (Van Buren) "A" & "B" [1, 7] Composite	MLVB	33165	060658005	11/09/05	1-in-3
9C	Mira Loma (Van Buren) "C" [3, 7]	MLVB	33165	060658005	03/08/12	1-in-6
10	Mission Viejo	MSVJ	30002	060592022	06/01/99	1-in-6
11	Palm Springs [7]	PLSP	33137	060655001	12/26/99	1-in-6
12	Redlands	RDLD	36204	060714003	09/01/86	1-in-6
13A	Rubidoux "A"	RIVR	33144	060658001	01/03/99	1-in-3
13B	Rubidoux "B" [3]	RIVR	33144	060658001	01/03/99	1-in-6
14	Santa Clarita	SCLR	70090	060376012	05/01/2001	1-in-6

[1] Run on 1-in-3 run day as composite sampler.
[2] Run as collocated NATTS.
[3] Run as collocated on 1-in-6 run day.
[4] Site is currently offline during transition to new location; however, the three remaining collocated sites meet minimum requirements.
[5] System Modification Request in process for site closure.
[6] Site is currently offline during transition to new location.
[7] Site is expected to transition to real time FEM as the primary monitor.

TABLE 6. PM10 Monitor Sampling Frequency for All Sites

	Location	AQS No.	Expected Maximum concentration 24-hour [1]	Required Sampling Frequency	Sampling Frequency	Monitor
1	Anaheim	060590007	90	1-in-6	1-in-1	FEM
2	Azusa[3]	060370002	98	1-in-6	1-in-6	FRM
3	Banning	060650012	52	1-in-6	1-in-6	FRM
4	Central San Bernardino Mountains	060710005	49	1-in-6	1-in-6	FRM
5	Fontana	060712002	62	1-in-6	1-in-6	FRM
6	Glendora	060370016	83	1-in-6	1-in-1	FEM
7	Indio [3]	060652002	160	1-in-1	1-in-1	FEM
8	Lake Elsinore	060659001	91	1-in-6	1-in-1	FEM
9	LAX (Hastings) [3]	060375005	ND [4]	1-in-6	1-in-6	FRM
10	Long Beach (Hudson) [2]	060374006	128	1-in-2	1-in-1	FEM
11	Los Angeles (Main St.)	060371103	43	1-in-6	1-in-1	FEM
12	Mecca (Saul Martinez)	060652005	428	1-in-6	1-in-1	FEM
13	Mira Loma (Van Buren)	060658005	81	1-in-6	1-in-1	FEM
14	Mission Viejo	060592022	31	1-in-6	1-in-6	FRM
15	Palm Springs	060655001	159	1-in-1	1-in-1	FEM
16	Redlands	060714003	50	1-in-6	1-in-6	FRM
17	Rubidoux	060658001	64	1-in-6	1-in-1	FEM
18	San Bernardino	060719004	177	1-in-1	1-in-1	FEM
19	Santa Clarita	060376012	36	1-in-6	1-in-6	FRM
20	Signal Hill	060374009	57	1-in-6	1-in-1	FEM
21	Upland [2]	060711004	144	1-in-1	1-in-1	FEM

[1] Maximum 24-hour concentration of all monitors (FRM/FEM) over the most recent year; where 24-hour concentration was not available in AMP 450NC report, 24-hour BLK AVG was used.
[2] System Modification Request in process for site closure.
[3] Site is currently offline during transition to new location.
[4] No data available during 2022.

PM10-2.5

PM10-2.5 (PM Coarse) was previously required at National Core (NCore) sites until the revision to 40 CFR Part 58 on March 28, 2016. PM Coarse is derived from the continuous BAM PM10 and PM2.5 particulate monitors. South Coast AQMD discontinued this optional parameter at the Los Angeles (Main St.) and Rubidoux air monitoring sites as shown in Table 4.

NITROGEN DIOXIDE (NO2)

The NO2 network consists of 23 area wide and 4 near road sites. These sites are located in areas of the highest expected NO2 concentrations.

The Near Road monitoring network consists of four sites established in January of 2014 and 2015. These sites were established based upon the U.S. EPA Near Road Technical Assistance Document and approved by U.S. EPA. The implementation plan was presented

publicly at a Near Road Workshop to solicit input. Near Road sites are adjacent to the most heavily traveled roadways identified in the basin where peak hourly NO2 concentrations occur within the near-road environment. Site selection took into consideration satisfying siting criteria, site logistics (e.g., gaining access to property and safety) and population exposure for those who live, work, play, go to school, or commute within the near-roadway environment. The spatial distribution of NO2 monitors is shown in Figure 3 in Appendix A and minimum monitoring requirements are shown in Table 19.

Additionally, the Regional Administrator (RA) identified 40 NO2 sites nationwide with a primary focus on siting these monitors in locations to protect susceptible and vulnerable populations. The RA in collaboration with South Coast AQMD identified the Los Angeles (Main St.) and San Bernardino sites from the existing area-wide criteria pollutant monitoring network to meet this requirement (58.10 [a][5]). On September 30, 2013, Compton was additionally designated by U.S. EPA as an RA 40 site. Review of 1992 through 2022 NO2 data shows the State and Federal standards for NO2 were not violated.

CARBON MONOXIDE (CO)

Area wide CO monitors measure concentrations at 21 ambient locations and 2 near road locations within the South Coast AQMD ambient air monitoring network. Figure 4 in Appendix A shows the spatial distribution of these sites. CO emissions, primarily from motor vehicles, show a pattern consistent with major freeway arteries.

During March 2022 Antelope Valley APCD advised South Coast AQMD it was discontinuing CO monitoring at the Lancaster AMS and requested an agreement of shared CO monitoring responsibilities for the 31080 Los Angeles-Long Beach-Anaheim Metropolitan Statistical Area (MSA). South Coast AQMD agrees to share CO monitoring responsibilities and notify Antelope Valley APCD of any site closures that impact the minimum monitoring requirement for CO.

A review of data for 2022 shows State and Federal standards for CO were not exceeded.

SULFUR DIOXIDE (SO2)

SO2 monitors are located at 4 sites. Figure 5 in Appendix A shows the spatial distribution of the sites. Most SO2 emissions result from federally regulated transportation sources such as marine vessels. The monitors are largely clustered in the areas where sources are located.

On June 22, 2010, U.S. EPA strengthened the SO2 NAAQS. Network design requirements included new minimum requirements be determined by the Population Weighted Emissions Index (PWEI).

> The PWEI shall be calculated by States for each Core Based Statistical Area (CBSA) they contain or share with another State or States for use in the implementation of or adjustment to the SO2 monitoring network. The PWEI shall be calculated by multiplying the population of each CBSA, using the most current census data or estimates and the total amount of SO2 in tons per year emitted within the CBSA area, using an aggregate of the most recent county level emissions data

available in the National Emissions Inventory (NEI) for each county in each CBSA. The resulting product shall be divided by one million, providing a PWEI value, the units of which are million person-tons per year. For any CBSA with a calculated PWEI value equal to or greater than 1,000,000, a minimum of three SO2 monitors are required within that CBSA. For any CBSA with a calculated PWEI value equal to or greater than 100,000, but less than 1,000,000, a minimum of two SO2 monitors are required within that CBSA and for any CBSA with a calculated PWEI value equal to or greater than 5,000, but less than 100,000, a minimum of one SO2 monitor is required within that CBSA.

TABLE 7. PWEI Calculation and Minimum Required SO2

CBSA	Population Estimate[1]	NEI SO2 Emmissions[2]	PWEI Value	Minimum Required SO2
31080	12,997,353	5,593.36	72,699	1
40140	4,653,105	1,889.95	8,794	1

[1]2021 is the most recent Census estimate available for download at Metropolitan and Micropolitan Statistical Areas Totals: 2020-2021 (census.gov)
[2] 2020 NEI Data most recent available at https://www.epa.gov/air-emissions-inventories/national-emissions-inventory

During February 2022 Mojave Desert AQMD advised South Coast AQMD it was discontinuing SO2 monitoring at the Victorville and Trona AMS and requested an agreement of shared SO2 monitoring responsibilities for the 40140 Riverside-San Bernardino-Ontario MSA. South Coast AQMD agrees to share SO2 monitoring responsibilities and notify Antelope Valley APCD of any site closures that impact the minimum monitoring requirement for SO2.

South Coast AQMD exceeds the minimum monitoring requirement for SO2 monitors; the annual and 24-hour federal standards were last exceeded in the 1960's.

PARTICULATE LEAD

Total Suspended Particulate (TSP) Pb measurements are collected at 8 sites as part of the particulate network; 2 of the sites are Source Impact for Pb, 2 are NCore and the remaining 4 sites measure ambient Pb. Minimum monitoring and collocation requirements are shown in Tables 8, 9, 22, 23, 24 and 26. The spatial distribution of these sites is shown in Figure 6 in Appendix A.

U.S. EPA regulation requires local agencies to conduct ambient air Pb monitoring near Pb sources which are expected to or have been shown to contribute to a maximum Pb concentration in ambient air in excess of the NAAQS, taking into account the logistics and potential for population exposure. At a minimum, there must be one source-oriented SLAMS site located to measure the maximum Pb concentration in ambient air resulting from each non-airport Pb source which emits 0.50 (1000 lb.) or more tons per year (TPY) and from each airport which emits 1.0 (2000 lb.) or more TPY based the most recent NEI or other scientifically justifiable methods and data (such as improved emissions factors or site-specific data). The most recent data from the NEI (https://www.epa.gov/air-emissions-inventories/national-emissions-inventory) shows there were no non-airport Pb sources that emit 0.50 or more TPY and no airports that exceeded the 1.0 TPY threshold requiring a monitoring plan, however South Coast AQMD operates source Pb sites at Rehrig (Exide)

and Closet World (Quemetco). The top Pb sources within South Coast AQMD jurisdiction are shown in Table 8.

TABLE 8. NEI Pb Sources

	Location	Data Source	Emissions (lb.)	Type	Meet Threshold
1	Long Beach Daugherty	NEI	1135	Airport	No
2	Van Nuys	NEI	933	Airport	No
3	John Wayne	NEI	859	Airport	No
4	Chino	NEI	793	Airport	No
5	Riverside	NEI	511	Airport	No
6	Zamperini Field	NEI	503	Airport	No
7	Desert Resorts Regional	NEI	491	Airport	No
8	Whiteman Airport	NEI	438	Airport	No

[1] 2020 NEI Data most recent available at https://www.epa.gov/air-emissions-inventories/national-emissions-inventory

Existing urban Pb monitoring sites include Compton, LAX Hastings, Pico Rivera, and San Bernardino. Los Angeles (Main St.) and Rubidoux are designated NCore Pb sites, however, U.S. EPA proposed removing the requirement for Pb monitoring at NCore sites (79 FR 54395, September 11, 2014). Therefore, South Coast AQMD may request a reduction in monitoring network through the established U.S. EPA system modification process. Despite reductions, South Coast AQMD will continue to meet or exceed the minimum monitoring requirements for Pb. During 2021, South Coast AQMD was not in violation of the Pb NAAQS.

TABLE 9. Manual Pb FRM Monitor Sampling Frequency

	Location	AQS No.	Type	Required Sampling Frequency
1	Closet World (Quemetco)	060371404	Source Oriented	1-in-6
2A	Compton "A"	060371302	Non-Source Oriented	1-in-6
2B	Compton "B" [2]	060371302	Non-Source Oriented	1-in-6
3	LAX Hastings[3]	060375005	Non-Source Oriented	1-in-6
4A	Los Angeles (Main St.)[1]	060371103	Non-Source Oriented	1-in-6
4B	Los Angeles (Main St.)[1, 2]	060371103	Non-Source Oriented	1-in-6
5	Pico Rivera #2	060371602	Non-Source Oriented	1-in-6
6A	Rehrig (Exide)	060371405	Source Oriented	1-in-6
6C	Rehrig (Exide) [2]	060371405	Source Oriented	1-in-6
7	Rubidoux [1]	060658001	Non-Source Oriented	1-in-6
8	San Bernardino	060719004	Non-Source Oriented	1-in-6

[1] U.S. EPA proposed removing the requirement for Pb monitoring at NCore sites (79 FR 54395, September 11, 2014).
[2] Run as collocated on 1-in-6 run day, max values in Tables 22, 23, 24.
[3] Site is currently offline during transition to new location.

Note: Sampling frequency requirement per 58.12 (b)

Photochemical Assessment Monitoring Stations (PAMS)

On October 1, 2015, U.S. EPA revised PAMS guidance and required State air monitoring agencies begin PAMS measurements at their NCore locations by June 1, 2019. The PAMS network consists of the following:

Network Locations

NCore sites at Los Angeles (Main St.) and Rubidoux, serve as the required PAMS sites and measure the following parameters described below.

Auto GC

Volatile Organic Compounds (VOCs) – A complete list of the targeted compounds are found in Table 10. South Coast AQMD measures hourly speciated VOC measurements with an auto-gas chromatograph (GC) using an Agilent/Markes model 7890A/Unity Air Server 2.

Meteorology Measurements

South Coast AQMD measures wind direction, wind speed, temperature, humidity, atmospheric pressure, solar radiation, ultraviolet radiation, and mixing height. South Coast AQMD has elected to use the following instrumentation to measure the parameters described above: RM Young 5305VP anemometer, Rotronic HC2-S3 ambient temperature/humidity, Vaisala PTB 110 barometer, Kipp and Zonen CMP6 Pyranometer, Eppley TUVR Total Ultraviolet Radiometer and Vaisala CL51 Ceilometers.

Other Measurements

Carbonyls – South Coast AQMD monitors Carbonyls at a frequency of three 8-hour samples on a one in-three-day basis during the months of June, July, August, and September (~120 samples per PAMS sampling season) using ATEC model 8000 Automated Sampler. A complete list of the target carbonyl compounds may be found in Table 10.

Nitrogen Oxides – South Coast AQMD monitors NO and NOy (total oxides of nitrogen) in addition to true NO2. The true NO2 is measured utilizing Teledyne CAPS T500U for the true NO2 measurement. NO and NOy are measured using a Thermo 42i or Thermo 42i-Y.

Ozone – South Coast AQMD operates a network of 28 ozone monitors throughout the South Coast jurisdiction.

Table 10 PAMS Target Compound List[a]

Priority Compounds				Optional Compounds			
1	1,2,3-trimethylbenzene[a]	19	n-hexane [b]	1	1,3,5-trimethylbenzene	19	m-diethlybenzene
2	1,2,4-trimethylbenzene[a]	20	n-pentane	2	1-pentene	20	methylcyclohexane
3	1-butene	21	o-ethyltoluene [a]	3	2,2-dimethylbutane	21	methylcyclopentane
4	2,2,4-trimethylpentane[b]	22	o-xylene [a, b]	4	2,3,4-trimethylpentane	22	n-decane
5	Acetaldehyde[b, c]	23	p-ethyltoluene [a]	5	2,3-dimethylbutane	23	n-heptane
6	acetone [c, d]	24	Propane	6	2,3-dimethylpentane	24	n-nonane
7	benzene [a, b]	25	propylene	7	2,4-dimethylpentane	25	n-octane
8	c-2-butene	26	styrene [a, b]	8	2-methylheptane	26	n-propylbenzene [a]
9	ethane [d]	27	toluene [a, b]	9	2-methylhexane	27	n-undecane
10	ethylbenzene [a, b]	28	t-2-butene	10	2-methylpentane	28	p-diethylbenzene
11	Ethylene			11	3-methylheptane	29	t-2-pentene
12	formaldehyde [b, c]			12	3-methylhexane	30	α/β-pinene
13	Isobutane			13	3-methylpentane	31	1,3 butadiene [b]
14	Isopentane			14	Acetylene	32	benzaldehyde [c]
15	Isoprene			15	c-2-pentene	33	carbon tetrachloride [b]
16	m&p-xylenes [a, b]			16	cyclohexane	34	Ethanol
17	m-ethyltoluene [a]			17	cyclopentane	35	Tetrachloroethylene [b]
18	n-butane			18	isopropylbenzene [b]		

Source: Revisions to the Photochemical Assessment Monitoring Stations Compound Target List. U.S. EPA, November 20, 2013
[an] Important SOAP (Secondary Organic Aerosols Precursor) Compounds
[b] HAP (Hazardous Air Pollutant) Compounds
[c] Carbonyl compounds
[d] non-reactive compounds, not considered to be VOC for regulatory purposes

The PAMS network monitoring objectives and requirements are summarized in Table 11, Table 25 and Figure 7 in Appendix A which show the distribution of the PAMS network.

TABLE 11. PAMS Network

		June 1 to August 31		
Date Established as PAMS	**Site / AQS ID#**	**VOC**	**Carbonyl**	**Comments**
06/01/2009	Los Angeles (Main St)	Auto GC hourly averages	3 x 8-hr. sample every 3rd day	Direct Measure NO2, Barometric Pressure, UV Radiation, Solar Radiation, Precipitation and Upper Air Measurements are conducted year-round.
06/09/2009	Rubidoux	Auto GC hourly averages	3 x 8-hr. sample every 3rd day	Direct Measure NO2, Barometric Pressure, UV Radiation, Solar Radiation, Precipitation and Upper Air Measurements are conducted year-round.

PM2.5

South Coast AQMD operates a total of 18 FRM sites, exceeding the minimum number of required FRM PM2.5 SLAMS sites per 40 CFR 58 Appendix D and shown in Tables 12, 13 and 15. These sites are located at NCore as well as Non-NCore SLAMS sites and designed to complement each other; both types are used to meet the minimum PM2.5 network requirements.

FRM 2.5 SLAMS monitoring sites are selected to represent area-wide air quality and include monitors collocated with NCore/PAMS sites. Most monitoring sites are neighborhood scale, however, a few micro scale PM2.5 monitoring sites are considered to represent area-wide air quality including the Long Beach Route 710 and Ontario Route 60 near road sites.

The Pico Rivera and Ontario Near Road 60 monitors are daily DV sites. The Compton and Ontario Route 60 Near Road are Annual DV sites as shown in Table 15. Minimum sampling frequencies are shown in Table 13. Monitors exceed the minimum NCore 1-in-3 requirements at the Rubidoux and Los Angeles (Main St.) sites. The remaining sites meet or exceed the 1-in-3 schedule. The Federal minimum monitoring requirements for PM2.5 are being met and/or exceeded by the South Coast AQMD PM2.5 FRM monitoring network.

Collocated FRM PM2.5 sites include Los Angeles (Main St.), Mira Loma (Van Buren), and Rubidoux. 40 CFR § 58 Appendix A 3.2.3.4 (b) requires fifty percent of the collocated quality control monitors to be deployed at sites with annual average or daily concentrations estimated to be within plus or minus 20 percent of either the annual or 24-hour NAAQS and the remainder at the PQAOs discretion, the preceding sites meet this requirement. Supporting data is shown in Table 12 and Figure 9, 2022 Air Quality Data Table. The latest data can be found at:
(http://www.aqmd.gov/home/air-quality/air-quality-data-studies/historical-data-by-year).

Continuous PM2.5 monitors are required at 2 sites in each MSA as defined in 40 CFR 58 Appendix D and shown in Table 27. FEM continuous analyzers are largely collocated with daily FRM monitors except for Big Bear, and Signal Hill which are primary monitors.

South Coast AQMD conducted a PM2.5 Continuous Monitor Comparability Assessment in accordance with the PM NAAQS rule published on January 15, 2013 (78 FR 3086) for the period 2020-2022. Specific to the provisions detailed in § 58.10 (b)(13) and § 58.11 (e). The assessment results, shown in Appendix C, indicate the Compton, Los Angeles (Main St.), and Mira Loma (Van Buren) monitors do not meet the criteria to be compared against the NAAQS. Therefore, South Coast AQMD requests a waiver to exclude PM2.5 continuous monitor data from NAAQS comparison for 1/1/2020 through 12/31/2022. An exclusion waiver for PM2.5 FRM monitors at Los Angeles (Main St.), has been granted by U.S. EPA for 1/1/2019 through 12/31/2021 as shown in Appendix E. Meanwhile, South Coast AQMD is continuing comparison studies of newer technology to determine their ability to meet the criteria to be compared against the NAAQS. Met One monitors have been undergoing acceptance testing since August 2022 and have not passed acceptance testing. South Coast AQMD is working with Met One to resolve zero test, noise, and consistency issues with the monitors. Meanwhile, South Coast is exploring alternative vendors before purchasing additional equipment.

Where both 24-hour FRM PM2.5 samplers and FEM PM2.5 continuous analyzers are deployed together, they are sited as collocated for data comparison purposes. The FRM PM2.5 sampler remains the primary analyzer used for attainment purposes and continuous analyzers are designated as duplicate monitors unless the primary 24-hour FRM PM2.5 is

offline then continuous FEM analyzer data can be substituted if the FEM analyzer meets the acceptance criteria under 78 FR 3086.

Coarse particulate matter measurements (PM10-2.5) were required at NCore sites until the revision to 40 CFR Part 58 on March 28, 2016. South Coast AQMD has discontinued this measurement at the Los Angeles (Main St.) and Rubidoux air monitoring sites. These monitors are shown in Table 4.

Numerous sites within the South Coast AQMD FRM PM2.5 network are in areas where PM2.5 levels are higher than the NAAQS. Therefore, multiple sites are listed as population exposure and high concentration. If a PM2.5 network modification were to be implemented for a site that was in exceedance of the PM2.5 NAAQS levels, South Coast AQMD would notify U.S. EPA Region IX via written communication. Public notice of network modifications occurs as part of the annual network plan process which is stated in the annual network plan as required in 40 CFR § 58.10 (c). All sites in the Network using FRM samplers are suitable for comparison against the annual PM2.5 NAAQS.

PM2.5 speciation sampling is also a part of the South Coast AQMD PM2.5 program. Chemical speciation monitors are located at Los Angeles (Main St.) and Rubidoux sites as part of U.S. EPA PM2.5 Chemical Speciation Network (CSN). These sites were selected and approved with the concurrence of the RA. The PM2.5 CSN sites include analysis for elements, selected anions, cations, and carbon by a U.S. EPA contracted laboratory. Additional PM2.5 Chemical speciation is conducted at Los Angeles (Main St.), Rubidoux, Anaheim, and Fontana as part of the South Coast AQMD monitoring network. These monitors are separate from CSN, and samples are analyzed at the South Coast AQMD laboratory. Speciated data is used to develop implementation plans and support atmospheric/health effects related studies.

TABLE 12. Manual $PM_{2.5}$ FRM Monitoring Stations Assigned Site Numbers

	Location	Site Code	ARB No.	AQS No.	Start Date
1	Anaheim	ANAH	30178	060590007	01/03/99
2	Azusa[1]	AZUS	70060	060370002	01/04/99
3	Big Bear	BGBR	36001	060718001	02/08/99
4	Compton	COMP	70112	060371302	11/08
5	Fontana	FONT	36197	060712002	01/03/99
6	Indio[1, 3]	INDI	33157	060652002	01/30/99
7	Long Beach Route 710 Near Road	W710	70032	060374008	01/01/15
8A	Los Angeles (Main St.) "A"	CELA	70087	060371103	01/03/99
8B	Los Angeles (Main St.) "B"[2]	CELA	70087	060371103	01/06/99
9A	Mira Loma (Van Buren) "A"	MLVB	33165	060658005	11/09/05
9B	Mira Loma (Van Buren)"B"[2]	MLVB	33165	060658005	03/08/12
10	Mission Viejo[1, 3]	MSVJ	30002	060592022	06/15/99
11	Ontario Route 60 Near Road	60NR	36036	060710027	01/01/15
12	Palm Springs	PLSP	33137	060655001	12/26/99
13	Pasadena	PASA	70088	060372005	03/04/99
14	Pico Rivera #2	PICO	70185	060371602	09/12/05
15	Reseda	RESE	70074	060371201	01/24/99
16A	Rubidoux "A"	RIVR	33144	060658001	01/03/99
16B	Rubidoux "B"[2]	RIVR	33144	060658001	01/03/99
17	San Bernardino	SNBO	36203	060719004	01/03/99
18	Signal Hill	LBSH	36039	060374009	01/01/2020

[1] Site is currently offline during transition to new location.
[2] FRM run as collocated on 1-in-6 run day.
[3] Site in process of transition to PM2.5 FEM

TABLE 13. $PM_{2.5}$ Monitor Sampling Frequency Requirement

	Location	AQS No.	24-hour Design Value	33-37ug/m^3	Annual Design Value	< 12 ug/m^3	Required Frequency [1]	Current Frequency	Monitor Type
1	Anaheim [6]	060590007	34	Yes	11.2	Yes	1-in-3	Daily	FRM
2	Azusa	060370002	36	Yes	11.5	Yes	1-in-3	1-in-3	FRM
3A	Big Bear	060718001	22	No	7.7	Yes	1-in-3	Daily	FEM
3B	Big Bear [3]	060718001	N/A	Collocated			1-in-6	1-in-6	FRM
4	Compton [4]	060371302	39	No	13.0	No	1-in-3	Daily	FRM
5	Fontana	060712002	34	Yes	11.9	Yes	1-in-3	1-in-3	FRM
6	Indio [5]	060652002	21	No	10.2	Yes	1-in-3	Daily	FRM
7	Long Beach Route 710 Near Road [4]	060374008	34	Yes	12.9	No	1-in-3	Daily	FRM
8A	Los Angeles (Main St.) "A" [6]	060371103	38	No	12.5	No	1-in-3	Daily	FRM
8B	Los Angeles (Main St.) "B" [2]	060371103	N/A	Collocated			1-in-6	1-in-6	FRM
9A	Mira Loma (Van Buren) "A" [4]	060658005	36	Yes	13.6	No	1-in-3	Daily	FRM
9B	Mira Loma (Van Buren) "B" [2]	060658005	N/A	Collocated			1-in-6	1-in-6	FRM
10	Mission Viejo	060592022	26	No	9.6	Yes	1-in-3	Daily	FEM
11	Ontario Route 60 Near Road [4]	060710027	40	No	14.0	No	1-in-3	Daily	FRM
12	Palm Springs [5]	060655001	15	No	6.3	Yes	1-in-3	1-in-3	FRM
13	Pasadena	060372005	28	No	10.6	Yes	1-in-3	1-in-3	FRM
14	Pico Rivera #2	060371602	41	No	13.1	No	1-in-3	1-in-3	FRM
15	Reseda	060371201	31	No	10.1	Yes	1-in-3	1-in-3	FRM
16A	Rubidoux "A" [6]	060658001	34	Yes	12.3	No	1-in-3	Daily	FRM
16B	Rubidoux "B" [2]	060658001	N/A	Collocated			1-in-6	1-in-6	FRM
17	San Bernardino	060719004	29	No	11.8	Yes	1-in-3	1-in-3	FRM
18A	Signal Hill	060374009	19	No	8.7	Yes	1-in-3	Daily	FEM
18B	Signal Hill [3]	060374009	N/A	Collocated			1-in-6	1-in-6	FRM

[1]Required SLAMS stations whose measurements determine the 24-hour design value for their area and whose data are within ±5 percent of the level of the 24-hour PM2.5 NAAQS must have an FRM or FEM operate on a daily schedule if that area's design value for the annual NAAQS is less than the level of the annual PM2.5 standard. Changes in sampling frequency attributable to changes in design values shall be implemented no later than January 1 of the calendar year following the certification of such data as described in §58.15.

[2] Partisol 2025i run as collocated on 1-in-6 run day.

[3] Partisol 2000i run as collocated on 1-in-6 run day.

[4] Expected maximum location.

[5] Site in process of transition to PM2.5 FEM

[6] Proposed reductions in sample frequency to 1-in-3

National Air Toxics Trends Station (NATTS)

The NATTS program was developed to fulfill the need for long-term Hazardous Air Pollutant (HAP) monitoring data of consistent quality nationwide and is considered part of the larger Urban Air Toxics Monitoring Program (UATMP). The program has allowed for the identification of compounds that are prevalent in ambient air and for participating agencies to screen air samples for concentrations of air toxics that could potentially result in adverse human health effects. South Coast AQMD has conducted several air toxics measurement campaigns in the past, which demonstrated the variety and spatial distribution

of air toxics sources across the Basin. A single air toxics measurement site cannot reflect the levels and trends of air toxics throughout the Basin. For this reason, two NATTS sites are used to characterize the Basin's air toxics levels. The first site is a central urban core site in Los Angeles that reflects concentrations and trends due primarily to urban mobile source emissions. A second, more rural, inland site in Rubidoux captures the transport of pollutants from a variety of upwind mobile and industrial sources in the most populated areas of the air basin. NATTS monitoring began in February 2007 and continues at the Los Angeles (Main St.) and Rubidoux air monitoring sites. During April 2022, a system audit was conducted by U.S. EPA, which assessed the South Coast AQMD NATTS program. The audit found no significant issues with the operation of the network.

NCore

NCore monitoring rules required that South Coast AQMD make NCore sites operational by January 1, 2011. To meet this goal, South Coast AQMD installed trace level analyzers for CO, NOY and SO2 at the Rubidoux and Los Angeles (Main St.) sites. Both the Los Angeles (Main St.) and Rubidoux sites are NATTS and PAMS monitoring locations.

Special Programs

Special monitoring programs are conducted for rule compliance purposes, to characterize the levels of toxic air contaminants and other criteria pollutants in sub-regional areas or communities in the Basin, or to support modeling and planning efforts. The following is a list of special monitoring programs that were active during the past year. Note that this is being provided for informational purposes only and not part of the criteria pollutant network.

Assembly Bill 617 Community Air Initiatives (AB 617)

AB 617 Community Air Monitoring is being conducted in selected communities as part of the AB 617 program. The locations and types of pollutants being monitored are unique to each community and was determined through close collaboration with stakeholders. Data collected from air monitoring can provide valuable information about sources of air pollution, types of pollutants, and air quality impacts in AB 617 communities. Monitoring data resulting from the implementation of the Community Air Monitoring Plans (or CAMPs) can be used to support and track air quality actions prioritized by the community to reduce local exposure to harmful air pollutants.

The goals and objectives of AB617 are to:

- Help provide critical information used to guide investigators or provide public information.
- Expand South Coast AQMD's understanding of air quality priorities in AB167 communities.
- Support the development and implementation of emission reduction strategies and enforcement action designed to improve local air quality and reduce exposure.
- Complement and enhance existing South Coast AQMD and community-led programs.

The most recent program updates can be found at:
http://www.aqmd.gov/nav/about/initiatives/environmental-justice/ab617-134/ab-617-community-air-monitoring

Rule 1180 Refinery Fenceline Air Monitoring

Adopted in December 2017, Rule 1180 mandates the implementation of real-time observations of air quality at or near the fenceline of all major refineries in the Basin and in nearby communities.

The main objectives of Rule 1180 are to:

- Provide real-time information about air pollutant levels at the refinery fenceline and in nearby communities.
- Understand long-term variations and trends of refinery related emissions.
- Help communities understand potential air quality impacts of refinery emissions.
- Provide a notification to the community if emissions exceed pre-determined thresholds.
- Enable refineries to quickly address significant changes in emissions.

The most recent program updates can be found at: http://www.aqmd.gov/home/rules-compliance/rules/support-documents/rule-1180-refinery-fenceline-monitoring-plans.

Salton Sea Monitoring

On Sunday, September 9, 2012, a strong thunderstorm over the Salton Sea caused odors to be released and transported to the northwest, across the Coachella Valley and through the Banning Pass into the Basin. The odors also crossed through the mountain passes west of the Salton Sea and into the Temecula Valley. The following day, South Coast AQMD received over 235 complaints of sulfur type odors.

As the Salton Sea recedes, the potential exists for more of these large-scale odor events to occur. South Coast AQMD installed and maintains PM10 and H2S air monitors in Mecca (Saul Martinez Elementary School) and H2S at the Imperial Irrigation District's Torrez-Martinez site. The two sites monitor the type of expected nuisance pollutants which are released from the Salton Sea. The primary objective of this monitoring network is to place monitoring resources at a lakeside location where peak hydrogen sulfide concentrations are expected to occur and in the nearby community. The monitoring sites provide data that can be used to assess population exposures in case of odor events and for comparison to the state standard for hydrogen sulfide. The Mecca site has become part of the permanent ambient air monitoring network.

As the Salton Sea is projected to recede, these sites will be further enhanced for monitoring the predicted particulate matter (PM) emissions from the Salton Sea area that may influence the Coachella Valley and Basin PM levels. Large-scale odor events are announced as

advisories at the following location: http://www.aqmd.gov/home/air-quality/air-quality-advisories or at https://saltonseaodor.org/

Recent or Proposed Modifications to Network

Proposed modifications to the network included in this section are for public notification and information purposes. Any changes to the monitoring network will be completed through the approved modification request process and in consultation with U.S. EPA.

System Modification Requests

South Coast AQMD requested retroactive system modification requests from U.S. EPA Region IX for sites which have closed due to unexpected lease terminations and circumstances beyond control of South Coast AQMD. The following requests were approved by U.S. EPA during 2022: Burbank, Long Beach (Hudson), Ontario Fire Station, Riverside Magnolia, and Long Beach (North).

Additionally, South Coast AQMD was granted a waiver for the Central Los Angeles continuous FEM monitor based on the U.S. EPA Continuous Monitor Comparability Assessment criteria. However, requests for PM2.5 FEM waivers for Long Beach 710 near road and Ontario Route 60 near road sites were denied. In the denial response, U.S. EPA requested South Coast AQMD develop a performance assessment and implementation plan. Although South Coast AQMD meets all U.S. EPA quality control and quality assurance guidance, many of the monitors in operation are greater than 10 years old. A component of the performance assessment and implementation plan is instrument replacement. South Coast AQMD has been unable to purchase monitors which successfully pass acceptance testing. Other local agencies have similar findings, and the issue is currently under discussion in CAPCOA. Due to the ongoing issues, South Coast AQMD requests U.S. EPA collaboration to develop a template for a PM2.5 performance assessment and implementation plan. Additional detail about acceptance testing progress is discussed under, "Continuous PM2.5 Acceptance Testing."

Additional retroactive system modification requests are in process and are being submitted separately from the annual network plan. The requests include the following sites that have been closed due to unexpected lease terminations beyond control of South Coast AQMD: Norco, Perris, UDDH (Source Pb), Upland, Azusa, Indio and LAX (Hastings)

Additional proposed system modifications to be submitted separately, which have not taken place include Pomona closure, Anaheim relocation, siting at Crestline, Lake Elsinore, Pasadena, and the relocation of a PAMS ceilometer.

Additionally, South Coast AQMD and U.S. EPA Region IX are working collaboratively to identify low value criteria pollutant monitors over the required minimum number of monitors. Once identified, modification requests and supporting documentation will be submitted to U.S. EPA Region IX for final approval before removal of the monitors.

The preceding information are not formal system modification requests and for information purposes only.

The following program updates and proposed modifications for the criteria pollutant network and are not official requests for approval.

Continuous PM2.5 Acceptance Testing

South Coast AQMD continues to evaluate FEM PM2.5 as part of ongoing assessment of continuous PM2.5 monitors. Thermo Fisher Scientific 5014i EQPM-1102-150 has performed below expectation and measurements have been erratic and required extensive instrument maintenance. The manufacturer has been unable to resolve these issues. These monitors will be removed from the network once suitable replacements are found.

Testing of Met One's newest version of the BAM 1020 will continue during 2023-2024 as the manufacturer addresses concerns with zero testing, monitor assembly issues, and data concentration consistency compared to previous versions of the monitor. Currently the Met One BAM 1020 does not pass acceptance testing and is not a suitable replacement for older monitors.

Comparison studies between Met One Instruments, Inc. BAM-1022, Real Time Beta Attenuation Mass Monitor EQPM-1013-209, BAM-1020 Real Time Beta Attenuation Mass Monitor EQPM-0308-170 and Teledyne API, Model T640 Mass Monitor EQPM-0516-236 will continue. The assessments will focus on instrument performance, applicability for comparison to NAAQS, durability, and ease of operation/maintenance. If the comparisons meet the Continuous Monitor Comparability Assessment criteria, South Coast AQMD will reduce or remove manual FRM PM2.5 sampling from selected air monitoring sites. An update has been provided to U.S. EPA Region IX in in written correspondence and through the CAPCOA Monitoring group.

Norco Closure

The Norco site has been in continuous operation since December 1980. The site was originally located to measure the impact of PM10 on the surrounding community. The monitor is located on the grounds of the Naval Weapons Station Seal Beach – Detachment Norco. Due to changes in security requirements, the Naval Weapons Station requested the monitor be discontinued on December 31, 2021.

The most recent 2020 network assessment identified the PM10 monitor at Norco as a low value criteria pollutant monitor which is not utilized or required as part of an attainment or maintenance plan. South Coast AQMD has begun the process of seeking retroactive approval through the established U.S. EPA system modification request process to discontinue PM10 measurements at Norco.

Perris Closure

The Perris site has been in continuous operation since May 1973. The site was originally located to measure the impact of O3 on the surrounding community. Since the time of inception, the area surrounding the site has changed, potentially compromising data. During the 2020 network assessment the site was identified as low value due to compromised probe and monitoring path siting criteria as specified in 40 CFR § 58 Appendix E. Additionally,

the City of Perris required the site be discontinued on March 31, 2022. South Coast AQMD has begun the process of seeking retroactive approval through the established U.S. EPA system modification process to discontinue criteria pollutant measurements at Perris.

UDDH (Trojan) Closure

The UDDH source Pb site has been in continuous operation since November 1992. The site was originally located to measure source Pb from Trojan Battery. An analysis of Pb sources show Trojan Battery no longer meets the U.S. EPA threshold for air monitoring and during the last three years concentrations of Pb have been below NAAQS thresholds. On March 31, 2022, the owner of the facility required the site be discontinued. South Coast AQMD has begun the process of seeking retroactive approval through the established U.S. EPA system modification request process to discontinue criteria pollutant measurements at UDDH.

Upland Closure

The Upland site has been in continuous operation since March 1973 and is one of South Coast AQMD's oldest continuous sites. Since that time, the area surrounding the site has changed significantly, potentially compromising data. The site was originally established by CARB, in a trailer park. The park managers, Upland Cascade required the site be closed on March 31, 2023. South Coast AQMD is continuing to search for a replacement site to characterize ozone, and particulates along the foothills. Considering the site's history of O3 measurements, relocating as close as possible is a priority. South Coast AQMD has begun the process of seeking retroactive approval through the established U.S. EPA system modification request process to discontinue criteria pollutant measurements at Upland.

Azusa Closure

The Azusa site has been in continuous operation since January 1957 and is one of South Coast AQMD's oldest continuous sites. Since that time, the area surrounding the site has changed significantly, potentially compromising data. The site is located adjacent to an industrial facility and ownership has recently changed. The facility owner required the site to be closed on September 30, 2022. South Coast AQMD has established a lease with the nearby Army National Guard facility and is in the process of estimating infrastructure costs and receiving U.S. EPA approval. South Coast AQMD has begun the process of seeking retroactive approval through the established U.S. EPA system modification request process to discontinue criteria pollutant measurements at Azusa.

Indio Closure

The Indio site has been in continuous operation since January 1983 and is one of South Coast AQMD's oldest continuous sites in Coachella Valley. The site is located adjacent to the City of Indio Police and Fire departments. South Coast AQMD was notified by the City of Indio that it was constructing a new city government building and the site must be vacated by March 31, 2022. South Coast AQMD is in the final stages of establishing a new site at Amistad High School, part of the Desert Sands Unified School District to represent Coachella Valley. South Coast AQMD has begun the process of seeking retroactive approval through the established U.S. EPA system modification request process to discontinue criteria pollutant measurements at Indio.

Los Angeles (Hastings) Closure

The Los Angeles (Hastings) site has been in continuous operation since April 2004. Since that time Los Angeles World Airports (LAWA) has expanded the airport and are planning development of the area where the monitoring site was located. South Coast AQMD was notified by LAWA it must discontinue monitoring on September 30, 2021. South Coast AQMD has located an alternate site less than one mile from the current site and is consulting with U.S. EPA. South Coast AQMD has begun the process of seeking retroactive approval through the established U.S. EPA system modification request process to discontinue criteria pollutant measurements at Los Angeles (Hastings).

Pomona Notification of Future Request for Closure

The Pomona site has been in continuous operation since June 1965. The site was originally located to measure the impact of microscale CO on the surrounding community. Since the time of inception, the area surrounding the site has changed, potentially compromising data. During a TSA audit U.S. EPA recommended closure of the site due to inability to meet probe and monitoring path siting criteria as specified in 40 CFR § 58 Appendix E. South Coast AQMD has begun the process of seeking approval through the established U.S. EPA system modification process to discontinue criteria pollutant measurements at Pomona. Any discontinuation of monitoring will be completed in consultation with U.S. EPA.

Anaheim Notification of Future Request for Relocation

The Anaheim site has been in continuous operation since August 2001. Since that time, the area surrounding the site has changed significantly, potentially compromising data. The area immediately surrounding the site is designated as a loading/unloading zone for elementary school kids, creating a safety issue. South Coast AQMD has been approached by Anaheim Elementary School District to relocate to a nearby school to better meet the needs of the school district and South Coast AQMD. Potential sites are under evaluation and have been delayed due to the pandemic. Relocation of the current site will be completed in consultation with U.S. EPA.

PAMS Ceilometer relocation

South Coast AQMD PAMS sites include Los Angeles (Main) and Rubidoux. In the most recent PAMS plan, South Coast AQMD was granted a waiver to relocate the ceilometer to Los Angles (Hastings). Since that time, the LAX (Hastings) site has been closed. South Coast AQMD has begun the process of seeking approval through the established U.S. EPA system modification request process to relocate the PAMS program ceilometer to the North Hollywood monitoring site.

PM10 FRM Monitor Discontinuation

South Coast AQMD measures PM10 by using FRM monitors at 15 sites throughout the basin. Five of these sites are collocated with PM10 FEM continuous monitors. To reduce redundancy, South Coast AQMD will transition to continuous PM10 FEM monitors at Anaheim, Indio, Mira Loma, Palm Springs, and San Bernardino. Additional sites will transition to continuous PM10 as monitors become available.

PM2.5 Monitor Discontinuation and Schedule Reduction

South Coast AQMD measures PM2.5 by using FRM monitors at 18 sites throughout the basin. Two of these sites are collocated with PM2.5 FEM continuous monitors which measure concentrations consistent with FRM monitors. To reduce redundancy, South Coast AQMD will transition to continuous PM2.5 FEM monitors at Indio and Palm Springs from PM2.5 FRM monitors. Additional sites may move to continuous PM2.5 as monitors become available.

Additionally, only four PM2.5 FRM monitors are required to determine the design value for the area. This includes the Long Beach 710 near road, Compton, Ontario 60 near road, and Mira Loma monitoring sites. These monitors are within ±5 percent of the daily PM2.5 NAAQS and are less than the annual PM 2.5 NAAQS which requires daily monitoring as shown in Table 13. Because of this, South Coast AQMD is considering a reduction in schedule at the Los Angeles (Main), Anaheim, Rubidoux, and Indio PM2.5 FRM monitors from daily to 1-in-3 schedule. Any changes to the PM2.5 network, will be made in consultation with U.S. EPA and CARB.

CO Monitor Discontinuation

South Coast AQMD measures CO at 21 area wide and 2 near road sites throughout the basin. Review of 2022 data shows State and Federal standards for CO were not exceeded. The recent 2020 network assessment identified that the South Coast AQMD CO network exceeds the minimum monitoring requirement and the data collected is not utilized or required as part of an attainment or maintenance plan. South Coast AQMD has begun collaborating with U.S. EPA Region IX to remove low value criteria pollutant monitors. Upon further collaboration, modification requests and supporting documentation will be submitted to U.S. EPA Region IX for approval before removal of the monitors.

Minimum Monitoring Requirements

The South Coast AQMD jurisdictional boundary encompasses two MSAs and two CBSAs whose boundaries and codes mirror those of the MSAs as defined by the U.S. Office of Management and Budget. Los Angeles-Long Beach-Anaheim MSA\CBSA (Code 31080) has an estimated population of 12,997,353 and the Riverside-San Bernardino-Ontario MSA\CBSA (Code 40140) has an estimated population of 4,653,105 according to the most recent U.S. Census estimates available. The minimum number of monitors for each pollutant is based on MSA population as described in 40 CFR § 58 Appendix D. The South Coast AQMD is a PQAO, and the network exceeds the minimum monitoring requirements for all criteria pollutants. Details are provided below.

Table 14 Minimum Monitoring Requirements for O3.

(Note: Refer to section 4.1 and Table D-2 of Appendix D of 40 CFR Part 58.)

MSA	Counties	Population & Census Year [1]	8-hr DV (ppb) & Years [2]	DV Site (Name, AQS ID)	Monitors Required	Monitors Active	Monitors Needed
31080	Los Angeles Orange	12,997,353 2021	102 2020-2022	Glendora 060370016	4	16	0
40140	San Bernardino Riverside	4,653,105 2021	113 2020-2022	Redlands 060714003	3	12	0

[1]Population – 2021 is the most recent Census year available.
[2]DV Years – The three years over which the design value was calculated (AMP 480).
Monitors required for SIP or Maintenance Plan: 28

Table 15 Minimum Monitoring Requirements for PM2.5 SLAMS

(Note: Refer to sections 4.71, 4.72 and Table D-5 of Appendix D of 40 CFR Part 58.)

MSA	Counties	Population & Census Year	Annual DV [ug/m3] & Years [1]	Annual DV Site (Name, AQS ID)	Daily DV [ug/m3] & Years [1]	Daily DV Site (Name, AQS ID)	Required SLAMS Monitors	Active SLAMS Monitors	Additional SLAMS needed
31080	Los Angeles Orange	12,997,353 2021	13.4 2020-2022	Compton 060371302	41.0 2020-2022	Pico Rivera 060371602	3	10	0
40140	San Bernardino Riverside	4,653,105 2021	14.0 2020-2022	Ontario Route 60 Near Road 060710027	40.0 2020-2022	Ontario Route 60 Near Road 060710027	3	8	0

[1] DV Years – The three years over which the design value was calculated (AMP 480).
Monitors required for SIP or Maintenance Plan: 18

Table 16 Minimum Monitoring Requirements for Continuous PM2.5 Monitors

(FEM/ARM and non-FEM see 40 CFR 58 Appendix D Section 4.72.)

MSA	Counties	Population & Census Year	Annual DV [ug/m3] & Years [1]	Annual DV Site (Name, AQS ID)	Daily DV [ug/m3] & Years [1]	Daily DV Site (name, AQS ID)	Required Continuous Monitors	Active Continuous Monitors	Additional Continuous needed
31080	Los Angeles Orange	12,997,353 2021	13.4 2020-2022	Compton 060371302	41.0 2020-2022	Pico Rivera 060371602	2	5-FEM 4-Non-FEM	0
40140	San Bernardino Riverside	4,653,105 2021	14.0 2020-2022	Ontario Route 60 Near Road 060710027	40.0 2020-2022	Ontario Route 60 Near Road 060710027	2	4-FEM 5-Non-FEM	0

[1]DV Years – The three years over which the design value was calculated (AMP 480).
Monitors required for SIP or Maintenance Plan: 15

Table 17 Minimum Monitoring Requirements for Speciated PM2.5 Monitors

(Note: Refer to sections 4.74 of Appendix D of 40 CFR Part 58.)

MSA	Counties	Population & Census Year	Monitors Required [1]	Monitors Active	Monitors Needed
31080	Los Angeles Orange	12,997,353 2021	1	3	0
40140	San Bernardino Riverside	4,653,105 2021	1	3	0

[1]Sites designated as part of the $PM_{2.5}$ CSN.
Monitors required for SIP or Maintenance Plan: 6

Table 18 Minimum Monitoring Requirements for PM10

(Note: Refer to section 4.6 and Table D-4 of Appendix D of 40 CFR Part 58.)

MSA	Counties	Population & Census Year	2022 Max Concentration [ug/m3]	Max Concentration Site (Name, AQS ID)	Required Monitors	Active Monitors	Additional Monitors Needed
31080	Los Angeles Orange	12,997,353 2021	128 [1]	Long Beach (Hudson) 060374006	4-8 Med. Conc.	9	0
40140	San Bernardino Riverside	4,653,105 2021	432 [1]	Mecca (Saul Martinez) 060658005	6-10 High Conc.	12	0

Monitors required for SIP or Maintenance Plan: 21
[1]Expected maximum concentration is the highest (FRM/FEM) measurement during most recent year.

Table 19 Minimum Monitoring Requirements for NO2

(Note: Refer to section 4.3 of Appendix D of 40 CFR Part 58.)

CBSA	Population & Census Year	Max AADT Counts (2019) [1]	Required Near Road Monitors [2]	Active Near Road Monitors	Additional Near Road Monitors Needed	Required Area Wide Monitors	Active Area Wide Monitors	Additional Area wide Monitors Needed
31080	12,997,353 2021	386,000 2021	2	2	0	1	14	0
40140	4,653,105 2021	274,000 2021	2	2	0	1	9	0

[1]Max AADT Counts – 2021 latest data available from CA DOT; https://dot.ca.gov/programs/traffic-operations/census
[2]Four required began January 1, 2014-15.
Monitors required for SIP or Maintenance Plan: 23 (area wide), 4 (near road)
Monitors Required for PAMS: 2; U.S. EPA Regional Administrator-required monitors per 40 CFR 58, Appendix D 4.3.4: 2.

Table 20 Minimum Monitoring Requirements for SO2

(Note: Refer to section 4.4 of Appendix D of 40 CFR Part 58.)

CBSA	Counties	Total SO2 [1] [lbs./year]	Population Weighted Emissions Index [2] [million persons-tons per year]	Active Near Road Monitors	Required Area Wide Monitors	Active Area Wide Monitors	Additional Area wide Monitors Needed
31080	Los Angeles Orange	5593.36 2020	72,699	0	1	2	0
40140	San Bernardino Riverside	1889.95 2020	8,794	0	1	2	0

[1]Using latest NEI data 2020, available on U.S. EPA website https://www.epa.gov/air-emissions-inventories/national-emissions-inventory
[2]Calculated by multiplying CBSA population and total SO2 and dividing product by one million.
Monitors required for SIP or Maintenance Plan: 4
U.S. EPA Regional Administrator-required monitors per 40 CFR 58, Appendix D 4.4.3: 0

Table 21 Minimum Monitoring Requirements for CO

(Note: Refer to section 4.2 of Appendix D of 40 CFR Part 58.)

CBSA	Population & Census Year	Required Near Road Monitors [1]	Active Near Road Monitors [2]	Required Area Wide Monitors	Active Area Wide Monitors
31080	12,997,353 2021	1	1	0	13
40140	4,653,105 2021	1	1	0	9

[1]Began January 1, 2015
[2]Required sites active by January 1, 2015; were collocated with near road NO2 sites.
Monitors required for SIP or Maintenance Plan: 21 (area wide), 2 (near road)
U.S. EPA Regional Administrator-required monitors per 40 CFR 58, Appendix D 4.4.2: 0

Table 22 Minimum Monitoring Requirements for Pb at NCore

(Note: Refer to section 4.5 of Appendix D of 40 CFR Part 58.)

NCore Site (Name, AQS ID)	CBSA	Population & Census Year	Required Monitors [1]	Active Monitors	Additional Monitors Needed	Max 3-Month DV [ug/m3]	DV Date (Third month, year)
Los Angeles [2] (Main St.) 060371103	30180	12,997,353 2021	0	2	0	0.01	1, 2022
Rubidoux 060658001	40140	4,653,105 2021	0	1	0	0.01	1, 2022

[1] – Requirement rescinded per 79 FR 54395, September 11, 2014.
[2] – Collocated Monitor.

Table 23 Source Oriented Pb Monitoring

(Note: Refer to section 4.5 of Appendix D of 40 CFR Part 58.)

Source Name	Address	Pb Emissions (lbs. per year)	Emission Inventory Source[2] & Data Year	Max 3-Month DV [1] [ug/m3]	DV Date (Third month, year)
Exide Technologies [3]	4010 E. 26th Street Vernon, CA 90058	0.0	NEI, 2020	0.06 [4]	5, 2021
Quemetco Inc.	720 S 7th Avenue City of Industry, CA 91746	5.3	NEI, 2020	0.02	8, 2022

[1]Consider data from past three years.
[2]Using latest NEI Data 2020
[3]Exide facility is currently closed.
[4]Collocated site.
Monitors Required for SIP or Maintenance Plan: 8; U.S. EPA Regional Administrator required monitors per 40 CFR 58, Appendix D 4.5(C) c: 0.

Table 24 Minimum Monitoring Requirements for Pb, Non-Source, Non-NCore Monitoring

(Note: Refer to section 4.5 of Appendix D of 40 CFR Part 58.)

CBSA	Population & Census Year	Required Area Wide Monitors	Active Area Wide Monitors	Additional Monitors Needed	Max 3-Month DV [1] [ug/m3]	DV Date (Third month, year)
31080	12,997,353 2021	0	3	0	0.01 [2]	1, 2022
40140	4,653,105 2021	0	1	0	0.01	1, 2022

[1]DV Years – The three years over which the design value was calculated.
[2]Compton is the max 3 month DV collocated site.

Table 25 Minimum Monitoring Requirements for PAMS

(Note: Refer to section 5.0 of Appendix D of 40 CFR Part 58.)

Area	Type	Required PAMS Sites	Active PAMS Sites	PAMS Sites Needed
South Coast AQMD Monitoring Area	NCore Collocated	2	2	0

Table 26 Collocated Manual PM2.5, PM10 and Pb Networks

(Note: Refer to section 3.2.5, 3.3.5, 3.3.1 and 3.3.4.3 of Appendix A, 40 CFR Part 58.)

Pollutant	Method Code	Primary Monitors	Required Collocated Monitors	Active Collocated Monitors
PM2.5 Partisol 2025	145	18	3	3
PM2.5 Partisol 2000	143	0	0	2 [1]
PM10 Hi Vol GMW 1200	063	9	2	2
PM10 Tisch TE 6001	141	5	1	1
Pb (TSP Hi-Vol)	110 (non-Source)	6	1	2
Pb (Tsp Hi-Vol)	110 (Source)	2	1	1

[1]Collocated with continuous PM2.5 monitors at Big Bear, and Signal Hill.

Table 27 Collocated Automated (continuous) PM2.5 Network

(Note: Refer to section 3.2.3.1 & 3.3.5 of Appendix A, 40 CFR Part 58.)

Method Code	Primary Monitors	Required Collocated Monitors	Active Collocated Monitors
170	1	1	1 [1]
183	0	0	0
209	1	1	1 [2]

[1]Collocated with FRM monitor at Signal Hill.
[2]Collocated with FRM monitor at Big Bear.

Data Submittal and Archiving Requirements

As required in 40 CFR 58.16 (a), data is reported via AQS including all ambient air quality data and associated quality assurance data for SO2, CO, O3, NO2, NO, NOx, NR NO2, NO, NCore NOy, Pb-TSP mass concentration, Pb-PM10 mass concentration, PM10 mass concentration, PM2.5 mass concentration, filter-based PM2.5 FRM/FEM field blank mass, sampler-generated average daily temperature and sampler-generated average daily pressure, chemically speciated PM2.5 mass concentration data, PM10-2.5 mass concentration, meteorological data from NCore and PAMS sites, average daily temperature\average daily pressure for Pb sites and metadata records\information as specified by the AQS Data Coding Manual through December 31, 2022.

A data certification letter has been submitted to the RA certifying applicable data collected at all SLAMS. This includes all FRM, FEM, Approved Regional Method (ARM) and Special Purpose Monitors (SPM) that meet criteria in Appendix A, to part 58, for January 1 through December 31, 2021.